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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,743	03/15/2004	Kazuhiro Masuda	119096	9229
25944	7590	08/11/2006	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			DICKEY, THOMAS L	
			ART UNIT	PAPER NUMBER
			2826	
DATE MAILED: 08/11/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Applicati n No.</b> 10/799,743	<b>Applicant(s)</b> MASUDA, KAZUHIRO	
	<b>Examiner</b> Thomas L. Dickey	<b>Art Unit</b> 2826	

**-- The MAILING DATE of this c mmunication appears on the c ver sheet with the correspondenc address --**

**Peri d for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 5-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Pri rity under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/13/2006 has been entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2, and 5-9 are rejected under 35 U.S.C. 102(b) as being anticipated by WADA (2002/0025587).

Wada discloses an electronic instrument comprising a circuit board comprising a plurality of semiconductor devices which are stacked, each of the semiconductor devices being electrically connected through conductive members 8, and each

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comprising a substrate 5; a electrode 2, the electrode 2 being formed on the substrate 5; a through-hole 50 (part 4 in figures 9c-g and 10a-c) being formed through the electrode 2 and the substrate 5 in a stacking direction of the electrode 2 and the substrate 5, the through-hole 50 (part 4 in figures 9c-g and 10a-c) having a first diameter in the substrate 5 that is smaller (note, paragraph 0064, through-hole 50 (part 4 in figures 9c-g and 10a-c) may be formed in a straight shape as shown in figure 9c, thus obtaining a first diameter that is the same as the inside diameter of liner 38, which is smaller than the outer diameter of said liner 38, which matches the second diameter 36 of through-hole 50 (part 4 in figures 9c-g and 10a-c)) than a second diameter 36 in the electrode; a conductive member 8 being inserted into the through-hole 50 (part 4 in figures 9c-g and 10a-c); an insulating material 10 being disposed between the electrode 2 and the conductive member 8, the insulating material 10 including a wall portion located higher than at least the electrode 2; and at least a interlayer dielectric 16 being formed between the substrate 5 and the electrode 2, the through-hole 50 (part 4 in figures 9c-g and 10a-c) being formed in the interlayer dielectric 16, and surfaces of the interlayer dielectric 16 and substrate 5 in the through-hole 50 (part 4 in figures 9c-g and 10a-c) are formed to have a level difference in a boundary area between the substrate 5 and the interlayer dielectric 16; the conductive member 8 being formed over the wall portion of the insulating material 10 from the through-hole 50 (part 4 in figures 9c-g and 10a-c) and the conductive member 8 being connected with the electrode 2, wherein the insulating material 10 is formed to cover a upper surface of the electrode 2 and a

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surface in the through-hole 50 (part 4 in figures 9c-g and 10a-c), and includes a connection hole 68 (see figure 9e) for connecting at least the electrode 2 with the conductive member 8 at a position differing from the through-hole 50 (part 4 in figures 9c-g and 10a-c), the wall portion being disposed between the connection hole 68 and the through-hole 50 (part 4 in figures 9c-g and 10a-c), the conductive member 8 functions as a connection terminal which secures electrical connection in a axial direction of the through-hole 50 (part 4 in figures 9c-g and 10a-c), and a part of the conductive member 8 projects outward from the through-hole 50 (part 4 in figures 9c-g and 10a-c) on a side of the substrate 5 opposite to the side on which the electrode 2 is formed.

Note figures 8a-g, 9a-g, 10a-c, and paragraphs 0052-0080 of Wada.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1,2, and 5-9 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas L. Dickey whose telephone number is 571-272-1913. The examiner can normally be reached on Monday-Thursday 8-6.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Th.D.*  
**Thomas L. Dickey**  
**Primary Examiner**  
**Art Unit 2826**